

IN THE CLAIMS

Please reconsider the claims as follows:

1. (currently amended) An apparatus for packaging programs in a television program delivery system wherein the television program delivery system includes a cable television system, comprising:

a central processor unit (CPU), the CPU comprising program instructions for packaging programs for delivery using the television program delivery system, menu instructions for determining program positioning within each menu of each one of a plurality of cable headends based upon viewer information and combining a cable headend specific information signal and the packaged program signal for transmission over the television program delivery system via a single signal to [[a]] said plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information;

a program storage database coupled to the CPU, wherein the programs are stored for packaging;

a viewer information database coupled to the CPU, wherein said viewer information is stored;

an external program source coupled to the CPU, wherein external programs are received at the apparatus;

a delivery control processor unit (DCPU) coupled to and in communication with the CPU, wherein the program control information signal is generated based on information received from the CPU; and

a cable franchise information access module (CFIA), the CFIA, comprising:

a headend information module that analyzes information related to one or more specific cable headends, the information including one of a number of terminals connected to the cable headend, grouping of terminals, terminal configurations, and cable headend equipment; and

a cable franchise control signal generator that generates cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information and is integrated with the program control

information signal.

2. (original) The apparatus of claim 1, wherein the CPU further comprises:
a packager data entry interface, comprising:
 - a program selection module used to interactively select programs for delivery;
 - a program start time module used to select program start times;
 - a price setting module used to set program prices;
 - a transponder allocation module used to allocate transponder space; and
 - a menu editing module used to construct a program menu.
3. (original) The apparatus of claim 1, wherein the CPU further comprises:
a marketing information interface, comprising:
 - a programs watched information module that receives programs watched information for terminals in the television program delivery system;
 - a marketing information module that receives marketing information including viewer demographic information; and
 - an algorithms module that analyzes the programs watched information and the marketing information.
4. (original) The apparatus of claim 3, wherein the marketing information interface comprises a yield management subsystem, wherein the yield management subsystem determines an optimum time to broadcast a specific program in the television program delivery system.
5. (original) The apparatus of claim 4, wherein the optimum time is based on maximizing expected programs watched data for the specific program.
6. (original) The apparatus of claim 4, wherein the optimum time is based on maximizing viewer buy rates for the specific program.
7. (original) The apparatus of claim 4, wherein the yield management system

further determines an optimum mix of programs for delivery on the television program delivery system, and wherein the optimum mix of programs is based on one or more of program substitutes, program complements, time slice positioning, program repetitions, transponder availability, and menu positioning.

8. (canceled)
9. (original) The apparatus of claim 1, further comprising:
 - a process menu configurations module that determines menu formats and positions programs on menu screens;
 - a menu display module that provides a menu display; and
 - a menu edit module that provides on-the-fly menu editing.
10. (original) The apparatus of claim 1, further comprising:
 - a graphical transponder allocation display module that shows transponder allocation across the television program delivery system;
 - an editing transponder allocation module that provides interactive reallocation of transponder space; and
 - a video packaging module that packages the program control information signal and the programs.
11. (original) The apparatus of claim 1, further comprising:
 - a process program line-up module that develops a program lineup, wherein importance weighting algorithms and best fit time algorithms are used to assign programs to time slots.
12. (original) The apparatus of claim 11, wherein the process program line-up module, comprises:
 - a source creation module that processes source materials, wherein the source materials include materials from internal sources and external sources, and wherein the source material includes one or more of audio, video, text and multimedia material;

a program creation module that creates programs based on the processed source materials;

an event creation module that creates events comprising one or more programs;

a service creation module, wherein a service includes one or more events, the service creation module assigning run times and dates for each service, and checking for conflicts; and

a menu creation module that adds event and service information to a menu.

13. (previously presented) The apparatus of claim 1, wherein the programs comprise one or more of television programs, advertisements, promotionals, and interactive programs.

14. (currently amended) A method for packaging programs for delivery to one or more terminals in a network, comprising:

collecting user information for one or more users in the network;

receiving program information related to available programs;

determining a program lineup based on the collected user information and the program information;

analyzing information related to a specific cable headend to generate a cable headend specific information signal;

communicating at least the cable headend specific information signal from a central processor unit (CPU) to a delivery control processor unit (DCPU), wherein said DCPU is for generating a program control information signal based upon the cable headend specific information signal, wherein said program control information signal contains menu instructions for determining program positioning within said program lineup of each one of a plurality of cable headends based upon the collected user information; and

providing the program lineup to one or more of the terminals by combining the program lineup and the cable headend specific information signal comprising cable franchise information for transmission over the network via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a

portion of said single signal based on said cable headend specific information, wherein the cable headend specific information signal is integrated with the program control information signal.

15. (original) The method of claim 14, further comprising broadcasting the programs to the terminals in the network, the broadcast arranged according to the program lineup.

16. (original) The method of claim 14, wherein the determined program lineup is a unique program lineup determined for each terminal in the network, further comprising:

receiving a program selection from a user, the program selection based on the unique program lineup; and

providing the selected program to the user.

17. (original) The method of claim 14, wherein the determined program lineup is a one of a plurality of group program lineups, each of the group program lineups determined based on information for a group of users, further comprising broadcasting programs to the terminals in the network, the programs arranged according to one or more of the plurality of group program lineups.

18. (previously presented) The method of claim 17, wherein a group of users are serviced by the cable television headend.

19. (original) The method of claim 14, wherein each of the plurality of group program lineups and the broadcast programs are provided in a separate program channel.

20. (original) The method of claim 14, wherein the user information comprises:
programs watched information;
user demographic information; and
user-provided data.

21. (original) The method of claim 20, wherein the programs watched data

comprises:

programs purchased information;
program viewing times; and
channel tuning information.

22. (original) The method of claim 20, further comprising:
analyzing the user information to determine an optimum program lineup; and
packaging programs for broadcast according to the optimum program lineup.
23. (original) The method of claim 14, wherein the program lineup comprises a program control information signal, the program control information signal, comprising:
program category information, including names of program categories;
channels assigned to program categories;
programs available on each of the channels;
program start/stop time and duration;
program description; and
sample video clips for advertisement of a program.
24. (original) The method of claim 21, further comprising generating a program menu based on the program control information signal, wherein the subscriber selects a program for viewing based on the program lineup shown in the program menu.
25. (original) The method of claim 14, wherein the program lineup includes local avails, wherein local program sites insert local programs in the local avails.
26. (original) The method of claim 14, wherein the program lineup and the programs are provided directly to the terminals.
27. (original) The method of claim 26, wherein the program lineup and the programs are provided over a satellite distribution system.

28. (original) The method of claim 27, wherein the satellite distribution system is a C band system.
29. (original) The method of claim 27, wherein the satellite distribution system is a Ku band system.
30. (canceled)
31. (original) The method of claim 26, wherein the program lineup and the programs are provided over a cable television system.
32. (original) The method of claim 26, wherein the program lineup and the programs are provided using over-the-air broadcast.
33. (original) The method of claim 26, wherein the program lineup is provided using a first communications device and the programs are provided using a second communications device.
34. (original) The method of claim 33, wherein the first communications means is a dedicated channel.
35. (original) The method of claim 33, further comprising:
 - providing menu format information to the terminals, wherein the terminals use the program control information signal and the menu format information to generate an original program menu for display at the terminal; and
 - providing revised menu format information to the terminals, wherein the revised menu format information is used to generate a program menu having a format different from the original program menu.
36. (original) The method of claim 14, wherein the programs comprise:
 - interactive services;

subscription services; and
data services.

37. (canceled)

38. (original) The method of claim 36, wherein the data services comprise electronic commerce services including online services for reservation of airline seats.

39. (original) The method of claim 36, wherein the subscription services are based on a calendar period.

40. (original) The method of claim 36, wherein the interactive services include educational programs and games.

41. (original) The method of claim 14, further comprising optimizing the program lineup, the optimization, comprising:

receiving marketing information related to the available programs;
determining a program importance for each of the available programs;
assigning a weighting factor to each of the available programs; and
positioning each of the available programs within the program lineup.

42. (original) The method of claim 41, further comprising:

computing a yield management value for the program lineup, wherein the programs are positioned in the program lineup to maximize the yield management value.

43. (original) The method of claim 41, further comprising:

computing a yield management value for one of the available programs, wherein the one available program is positioned in the program lineup to maximize the yield management value.

44. (original) The method of claim 43, wherein the marketing information comprises program profit value and program viewed information.

45. (withdrawn) A system for packaging and delivering programs to remote terminals, comprising:

a master operations center, comprising:

a central processor unit (CPU), the CPU comprising program instructions for packaging programs for delivery to terminals coupled to the television program delivery system, and

a program storage database coupled to the CPU, wherein the programs are stored for packaging; and

one or more slave operations centers operably connected to the master operations center, each of the one or more slave operations centers, comprising:

a local CPU,

a viewer information database coupled to the local CPU, wherein viewer information is stored,

an external program source coupled to the local CPU, wherein external programs are received,

a delivery control processor unit (DCPU) coupled to the local CPU, wherein a program control information signal is generated, and

one or more uplink sites for transmitting the program control information signal and the programs to the remote terminals.

46. (withdrawn) The system of claim 45, wherein the master operations center, comprises:

a synchronization module that controls transmissions from the one or more slave operations centers, the synchronization module including a system clock; and

a transponder assignment module that assigns specific transponder space to each of the one or more slave operations centers.

47. (withdrawn) The system of claim 45, wherein the remote terminals include cable

television headends.

48. (withdrawn) The system of claim 45, wherein the remote terminals include television terminals.

49. (currently amended) A method for optimizing program packaging in a program delivery system, comprising:

selecting one or more programs for packaging;

determining program start times and dates;

allocating transponder space;

setting program prices;

generating a program menu;

analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal;

communicating at least the analyzed information related to the specific cable headend from a central processor unit (CPU) to a delivery control processor unit (DCPU), wherein said DCPU is for generating a program control information signal based upon the analyzed information related to the specific cable headend, wherein said program control information signal contains menu instructions for determining program positioning within said program menu of each one of a plurality of cable headends based upon the cable headend specific information;

packaging the programs and the program control information signal

combining said program control information signal with the cable headend specific information signal, wherein the cable headend specific information signal comprises cable franchise information integrated with the program control information signal; and

transmitting the packaged programs and the combined program control information signal and the cable headend specific information signal via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information.

50. (original) The method of claim 49, further comprising:
 - selecting types of program for packaging; and
 - adding additional program elements.
51. (original) The method of claim 49, wherein the program types include static programs, interactive programs, pay per view programs, live event programs, data services, and subscription programs.
52. (canceled)
53. (original) The method of claim 49, further comprising:
 - generating cable franchise information; and
 - combining the cable franchise information with the program control information signal and the programming package.
54. (previously presented) A method for packaging programs for delivery over a television program delivery network, comprising:
 - developing a program schedule and a program menu;
 - identifying time slots for local availabilities;
 - editing the program schedule and the program menu;
 - identifying external programs, comprising:
 - gathering programs from external sources, and
 - converting the external programs to a standard format;
 - identifying internal programs, comprising:
 - accessing stored programs, and
 - converting the stored programs to the standard format;
 - identifying live programs, comprising signaling needed live program signal feeds;
 - combining the external programs, the internal programs and the live programs;
 - analyzing information related to a specific cable headend in the program delivery system to generate a cable headend specific information signal;

communicating at least the cable headend specific information signal from a central processor unit (CPU) to a delivery control processor unit (DCPU), wherein said DCPU is for generating a program control information signal based upon the cable headend specific information signal, wherein said program control information signal contains menu instructions for determining program positioning within said program menu of each one of a plurality of cable headends based upon the cable headend specific information;

combining the program control information signal and the cable head end specific information signal, wherein the cable headend specific information signal comprises cable franchise information is integrated with the program control information signal; and

transmitting said combined program control information signal and cable head end specific information signal via a single signal to a plurality of cable headends, wherein each one of said plurality of cable headends extracts a portion of said single signal based on said cable headend specific information.

55. (original) The system of claim 54, further comprising:
 - obtaining franchise information; and
 - using the franchise information and the combined programs to generate the program control information signal.